

## **REMARKS/ARGUMENTS**

Claims 1-21 and 23-25 are pending in this application. In response to the Office Action, claims 1 and 24-25 have been amended and claim 23 has been canceled without prejudice or disclaimer of applicant's right to pursue patent protection for the subject matter of that claim in a subsequent application. Furthermore, the preamble of dependent claims 2-21 and 24-25 has been amended to correspond the subject claims with the language describing the invention in amended claim 1. Additionally, the dependencies of claims 24-25 were corrected. As filed, claims 24-25, which recite a "marking instrument", were dependent from claim 21, which was directed to an ink composition. As amended, claims 24-25 now depend from claim 1. The claim amendments are completely supported by the application as originally filed (see, e.g., p. 1, lines 15-21) and thus they raise no issue of new matter. Upon entry of this Amendment, claims 1-21 and 24-25, as amended, will be pending in the application.

### **Allowable Subject Matter**

Applicant notes with appreciation the remarks on p. 9 of the Examiner's May 10, 2006 Advisory Action in this case which state that, "... if the Amendment [filed April 21, 2006] were entered, claim 23 would be allowed over the prior art of record given that there is no disclosure in the "closest" prior art Loria et al. (U.S. 4,880,465) or Imagawa et al. (U.S. 5,338,793) of marking instruments selected from among wick style and free ink system as required in present claim 23". While claim 23 has been canceled in the present Amendment (due to the amendment of claim 1), claims 1, 2-21 and 24-25, as amended, are now directed to such a marking instrument which, as indicated above, is distinguishable over the 'closest' prior art in the view of the Examiner. Claims 1-21 and 24-25 as presently pending are thus believed to be in condition for allowance.

### **Claim Rejections Under 35 U.S.C. §112**

#### **a) Rejection Under 35 USC 112, Paragraph One**

Claims 1-21 and 23-25 are rejected under 35 USC 112, First Paragraph, due to alleged non-compliance with the so-called 'written description requirement' of the statute.

In response to the rejection, applicant has amended claim 1 to remove the word "substantially" from the phrase, "to provide a substantially homogeneous non-settling ink

composition.”. This amendment is believed to overcome the rejection of claim 1, as well as claims 2-21 and 24-25 which depend therefrom under §112, first paragraph. Claim 23 is, as noted above, canceled in this Amendment and thus the rejection is moot as to that claim. The Examiner is, therefore, respectfully requested to reconsider and withdraw the §112, first paragraph rejection of claims 1-21 and 23-25.

**B) Rejection Under 35 USC, Paragraph 2**

Claims 1-21 and 23-25 are rejected under 35 USC 112, Second Paragraph, due to an alleged failure by those claims to ‘particularly point out and distinctly claim’ the subject matter which applicant regards as the invention.

Applicant respectfully submits, in response, that the amendment to claim 1 as described above, whereby the word “substantially” is deleted from the claim, is believed to overcome the rejection as to claims 1-21 and 24-25. Moreover, the rejection is moot as to claim 23 which was canceled without prejudice or disclaimer. The Examiner is, therefore, respectfully requested to reconsider and withdraw the §112, second paragraph rejection of claims 1-21 and 23-25 in light of the amendment to claim 1.

**Claim Rejections Under 35 U.S.C. §102**

Claims 1-2, 4-9, 11-14, 17-18, 21, 23 and 25 are rejected under 35 U.S.C. §102(e) over USP 6,492,435 of Miyamoto et al. (“the ‘435 Patent”) taken in view of the evidence given in Miyamoto et al. ‘099 (US 6,451,099) for the reasons set forth, *inter alia*, in ¶4 of the previous Office Action mailed August 24, 2005 in this application.

These references are discussed at p. 2 of applicant’s specification. As noted therein, the inks described in the cited references are formulated specifically for use in ballpoint pens.

In this Amendment, applicant has canceled claim 23 and thus the rejection of that claim is rendered moot. In addition, applicant has amended independent claim 1 to recite that the invention is a writing instrument comprising a portion adapted to store therein a water-based opaque ink coloring composition, wherein the storage portion contains a fibrous filler material adapted to provide absorption and release of the water-based opaque ink coloring composition

onto a writing surface by capillary action. The claim then goes on, as before, to recite the various components of the water-based opaque ink coloring composition.

Thus, claim 1 as now amended, recites a “wick style” writing instrument adapted for use with a water-based opaque ink coloring composition as recited in the remaining portion of the claim. As pointed out, however, at p. 2, lines 7-8 of applicant’s specification, the presently claimed wick style type of writing instrument has a method of operation which is totally different from the ballpoint pen ‘type’ writing implements described in the Miyamoto et al. references.

Further to the above, as applicant noted in his prior response, the ‘099 patent utilizes titanium dioxide, whereas the formulation utilized in the presently claimed writing instrument avoids the use of such titanium dioxide due to settling problems which otherwise may occur upon the inclusion of that material (see p.1, lines 10-12 of the present specification). Applicant has, thus, further amended claim 1 to specifically recite that ink formulation used in the presently claimed writing instrument excludes titanium dioxide. This amendment thus further distinguishes claim 1 together with dependent claims 2-21 and 24-25 over the ‘099 patent.

For the reasons above, the Examiner is respectfully requested to reconsider and withdraw the rejection of claim 1 under 102(e) over the Miyamoto et al. references. Furthermore, as claims 2-21 and 24-25 depend, directly or indirectly from claim 1, they contain all of the recitations of the subject claim and are thus deemed to be distinguishable over the cited Miyamoto et al patents for the same reasons as claim 1. The 102(e) rejection of those dependent claims thus also should be withdrawn.

### Claim Rejections Under 35 U.S.C. §103

Claims 15-16 are rejected under the Miyamoto et al. ‘435 Patent in view of Wang et al. (U.S. 5,769,931) for the reasons set forth in ¶6 of the Examiner’s Office Action dated August 24, 2005. This rejection is respectfully traversed. The rejected claims depend from claim 1 and thus include all of the recitations of that claim. Claim 1 is distinguished for the reasons above over Miyamoto ‘435 and, thus, so are claims 15 and 16.

As to the Wang ‘931 patent, combined with Miyamoto et al. ‘435 patent to reject the subject claims, applicant notes that Wang does not supply the elements of the invention, as presently recited in claim 1, that are missing from Miyamoto et al. ‘435. In addition, the ‘931 reference refers to an ink formulated with a high viscosity to avoid settling problems. As pointed

out in applicant's prior response filed in this case, the reference teaches the use of various gums to increase and maintain viscosity. There is, however, no teaching or even a suggestion in the '931 reference to use hollow microspheres in order to produce opacity, and/or to the use of dimethicone copolyols to suspend such microspheres. Further to the above, due to their high viscosities, the inks disclosed in the '931 Patent will not work in a wick style writing instrument as now recited in claim 1, because their viscosity ranges would prevent any flow through such writing instruments.

Thus, neither Wang nor Miyamoto '435, taken individually or in combination, teaches the invention as presently recited in claims 15-16. The Examiner is therefore respectfully requested to reconsider and withdraw the rejection of claims 15-16.

Claim 19 is rejected under 103 over Miyamoto '435 in view of Imagawa et al. 5,716,217 for the reasons set forth in ¶7 of the Examiner's August 24, 2005 Office Action. This rejection is respectfully traversed. The rejected claim depends from claim 1 and thus it includes all of the recitations set forth in that claim. Claim 1 is distinguished for the reasons above over the Miyamoto '435 Patent and those remarks are thus incorporated by reference into this discussion.

Turning now to the '217 Imagawa et al. reference, applicant notes that the subject reference does not disclose the elements of the invention recited in claim 1, as now amended, that are missing from Miyamoto '435. As pointed out, e.g., at pp. 8-9 of applicant's Amendment dated November 22, 2005, the '217 patent to Imagawa et al. specifically limits itself to applications on "neon boards" or "lighted boards" (see, e.g., page 1, lines 25-45 of the '217 Patent). The reference contains no teaching to utilize the ink formulation(s) described therein with a "wick type" writing instrument as now recited in applicant's amended claim 1.

For the reasons above, therefore, the Examiner is respectfully requested to reconsider and withdraw the rejection of claim 19 based on the combination of Miyamoto '435 and Imagawa '217.

Still further, claims 1, 3-4, 6-12, 18-19 and 21 are rejected under §103 over Loria et al. (USP 4,880,465) in view of Takemoto et al. (USP 6,827,433) for the reasons set forth in ¶9 of the prior Office Action. These two references are discussed in detail on p. 11 of applicant's November 22, 2005 Amendment. As noted therein, U.S. 4,880,465 to Loria specifically states in its Abstract that the ink described therein is to be used for ink-jet printing. This method of

printing utilizes an electrical charge. Applicant's invention, as now recited, e.g., in claim 1, is a wick style writing implement, not an ink jet printing apparatus. As pointed out above in the portion of this response headed, "Allowable Subject Matter", the Examiner agrees that there is no disclosure in the "closest" Loria et al. '465 reference of the type of wick style writing instrument now recited in applicant's claim 1. Moreover, utilization of the now-claimed writing implement does not involve inks useful in ink-jet applications.

Further to the above, while the '465 Loria patent does utilize hollow microspheres, the reference does not disclose the use of dimethicone copolyols as recited in applicant's claim for preventing settling problems which otherwise tend to occur with the use of such microspheres. The reason behind the absence of dimethicone copolyols is because although the ink can be agitated while in the storage container, the ink disclosed by the reference is not stored in a delivery nozzle for an extended period of time. Therefore, settling problems do not occur and the use of dimethicone copolyols, which are included in applicant's claimed formulation, is not necessary. This is opposite to the settling problems which are otherwise inherent in a wick style writing implement, as presently recited in claim 1 of the present application. The invention as now claimed is, therefore, clearly distinguishable over the '465 Loria patent.

The Takemoto '433 reference which is combined with the Loria patent also relates to the ink-jet industry. The '433 invention does not relate to a writing instrument of the type recited in applicant's claim 1; nor does it mention or even suggest to utilize a ink coloring composition comprising hollow microspheres, as further recited in claim 1, since the inventors of the Takemoto '433 invention had no need to show opacity on dark surfaces. The silicone is used solely to achieve a good image on plain paper, i.e. to improve printability from the ink-jet printer, as mentioned on page 1, lines 60-65 of the patent. Takemoto '433 does not supply the element(s) of the invention missing from the Loria '465 patent, namely a wick style writing implement. Therefore, the subject claims are also distinguishable over Takemoto '433, whether taken individually or in combination with the Loria '465 patent. The Examiner is thus respectfully requested to reconsider and withdraw the rejection of claims 1, 3-4, 6-12, 18-19 and 21 under §103.

Claim 2 is rejected under 103(a) over Loria '465 in view of Takemoto '433, as applied above to claims 1, 3-4, 6-12, 18-19 and 21, and further in view of Imagawa et al. (U.S.

5,716,217). Claim 2 depends from claim 1 and thus contains all of the recitations of that claim. Claim 1 is distinguished above over both Loria '465 and Takemoto '433 and those comments are specifically incorporated into this discussion by reference thereto.

Turning to Imagawa, this reference is discussed above with regard to the rejection of claim 19. As indicated therein, this patent utilizes hollow sphere pigments but specifically limits itself to applications on "neon boards" or "lighted boards" as mentioned in page 1, lines 10-25. In contrast, as now recited in applicant's claims (see, e.g., claim 1), the present invention is comprised of a 'wick style' writing instrument containing a water-based opaque ink coloring composition as described in the subject claim. Thus, for this reason alone, applicant's invention is distinguishable over the Imagawa reference.. Still further, moreover, Imagawa does not contain any teaching that there is a need to suspend or prevent the hollow microspheres from settling, as there is in the case of inks incorporating the presently claimed adaptation(s). Still further, as mentioned on page 5, lines 25-45 of the '217 patent, a carboxylic acid ester is used as a separating agent. The carboxylic acid ester is used in aiding the removability of the ink from its intended writing surface, i.e. the neon boards. The Applicant's invention does not employ this type of process. Furthermore, as mentioned in page 6, lines 50-55 of the '217 patent, the assertions made that the particles with hollow microspheres will not coagulate or settle after long term storage in the pen was not substantiated by the inventors. This is the Applicant's reason for using dimethicone copolyols to suspend the hollow microspheres is to prevent coagulation and settling, which is an important problem in the case of inks adapted for use in at least one of a wick style and a free ink system writing instrument.

For the reasons above claim 2 is believed to distinguish the invention over all of the references cited to reject that claim, whether taken individually or in combination and the Examiner is, therefore, respectfully requested to reconsider and withdraw the rejection of the subject claim under §103.

Claims 13-14 are rejected under §103 over Loria '465 in view of Takemoto '433 as applied above in the rejection of claims 1, 3-4, 6-12, 18-19 and 21 and further in view of Beach et al. (U.S. 6,309,452). Claims 13-14 depend, directly or indirectly, upon claim 1 and thus they include all of the recitations of that claim. The rejection is respectfully traversed.

Claim 1 is readily distinguishable over The Loria '465 and Takemoto '433 references for the reasons discussed above and those remarks are specifically incorporated herein by reference.

Turning, therefore, to a discussion of the Beach et al. '452 patent, cited as a secondary reference in combination with Loria '465 and Takemoto '433, the invention described in Beach '452 refers to printing inks having requirements for Wet-Rub resistance. It does not, however, disclose or even suggest the wick style writing implement recited in claim 1. The Examiner is thus respectfully requested to reconsider and withdraw the rejection of claims 13-14 over the cited combination of references.

Claims 15-16 are rejected under §103 over Loria '465 in view of Takemoto '433 as applied above, and further in view of Pearlstein et al. (U.S. 6,087,416). Claims 15 and 16 both depend, directly or indirectly, from claim 1 and contain all of the recitations of that claim. The rejection under §103 is respectfully traversed.

The reasons why claim 1 is distinguishable over the Loria '465 and Takemoto '433 references are discussed above in detail and those remarks are specifically incorporated herein by reference.

Turning, therefore, to a discussion of the secondary reference, i.e., Pearlstein, applicant notes that U.S. 6,087,416 is another invention related to the ink-jet industry. To begin with, the reference nowhere discloses or even suggests a writing instrument as now recited in applicant's amended claim 1 Furthermore, the presently claimed ink formulation, which is adapted for use in a wick style writing instrument as now claimed, and not in an ink-jet apparatus, is readily distinguishable since ink jet formulations have different requirement from those that are the subject of the present invention. For instance, the '416 patent does not contain hollow microspheres and has no need to show opacity on dark surfaces. The silicone and/or fluorinated chemicals in Pearlstein's invention are solely used to wet the intended substrate and improve printability. They are not used to improve stability, suspend any pigment or prevent settling. Thus, claims 15-16 are distinguishable over Pearlstein '416, whether taken alone or in combination with either or both of Loria '465 and/or Takemoto '433. The Examiner is, therefore, respectfully requested to reconsider and withdraw the rejections of claims 15-16 under §103.

Claims 1-21 and 23-24 are rejected under §103 over the combination of Imagawa '217, Loftin '793 and Tanaka et al. (US 2003/0228430). Claim 23 has been canceled and thus the

rejection is moot as to that claim. Claims 2-22 and 24 depend, directly or indirectly, on claim 1 and thus they include all of the limitations of that claim. Claim 1 is distinguished above over both Imagawa '217 and Loftin '793 for the reasons set forth above.. These references are combined, however with Tanaka et al. in the present rejection. Turning thus to a discussion of that reference, Tanaka has no relationship to markers and/or writing instruments in general. Tanaka et al thus does not describe, or even suggest, a wick style writing instrument as now recited in applicant's claims. Tanaka's invention relates to thermal transfer printing. The use of hollow microspheres in the adhesive layer of the printing process does not apply in any way to the writing instruments and corresponding ink formulation as now recited in, e.g., claim 1 of the present application.. There is no mention, moreover, in the reference of suspending, stability and/or storage within a marker or writing instrument system. The entire publication describes a process for printing thermal transfers and is just another novel of use of hollow microspheres that is completely unrelated to applicant's invention.

As demonstrated above, therefore, claims 1-22 and 24 are distinguishable over Imagawa '217, Loftin '793 and Tanaka et al., whether those references are taken individually or in any combination.

The Examiner is, therefore, respectfully requested to reconsider and withdraw the rejection of claims 1-21 and 23-24 under §103 based on the combination of the three references discussed above.

## SUMMARY

For all of the reasons above, the claims as now amended are believed to distinguish the invention over each of the references cited in the Office Action, whether those references are taken individually or in any combination. Upon entry of this Amendment, therefore, it is believed that the entire application will be in condition for allowance.

Should the Examiner believe that an interview would advance the prosecution of this application, she is respectfully invited to telephone applicant's representative at the number below to arrange for such an interview.

EXPRESS MAIL CERTIFICATE

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